



12/04/97

TCS TRAINING DEVELOPMENT

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TCS TRAINING DEVELOPMENT

12/04/97

DISCUSSION OUTLINE

- TRAINING REQUIREMENTS
- TRAINING CONCEPT
- IMPLEMENTATION STRATEGY
- METHODOLOGY
- TIMELINE



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TRAINING REQUIREMENTS

● Scope of Training Development

- ¥ Training will support five levels of TCS interaction with existing and future UAV systems.
- ¥ Training will be designed to accommodate single-UAV and multi-UAV operations.
- ¥ Training will be designed in modules, scaleable to the level of interaction achievable by the supported TCS configuration and/or operator qualification.
- ¥ Courseware will be designed to incorporate new vehicles and capabilities.



● Architecture and Design

- ¥ Training software will leverage core HCI enabling UAV operator trained in one system to control different types of UAVs or payloads with minimal additional training.
- ¥ Training software will accommodate portability/exportability to the field. It will perform as a standalone unit or be embedded in the TCS system.
- ¥ Training software will be compatible with external simulation sources.



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● Implementation

- ¥ Initial training efforts focus on new equipment training and developing an instructor cadre while maintaining operational capability until institutions and field units can stand alone.
- ¥ Sustainment training will encompass training at the institutional level and In-service training at the unit level.

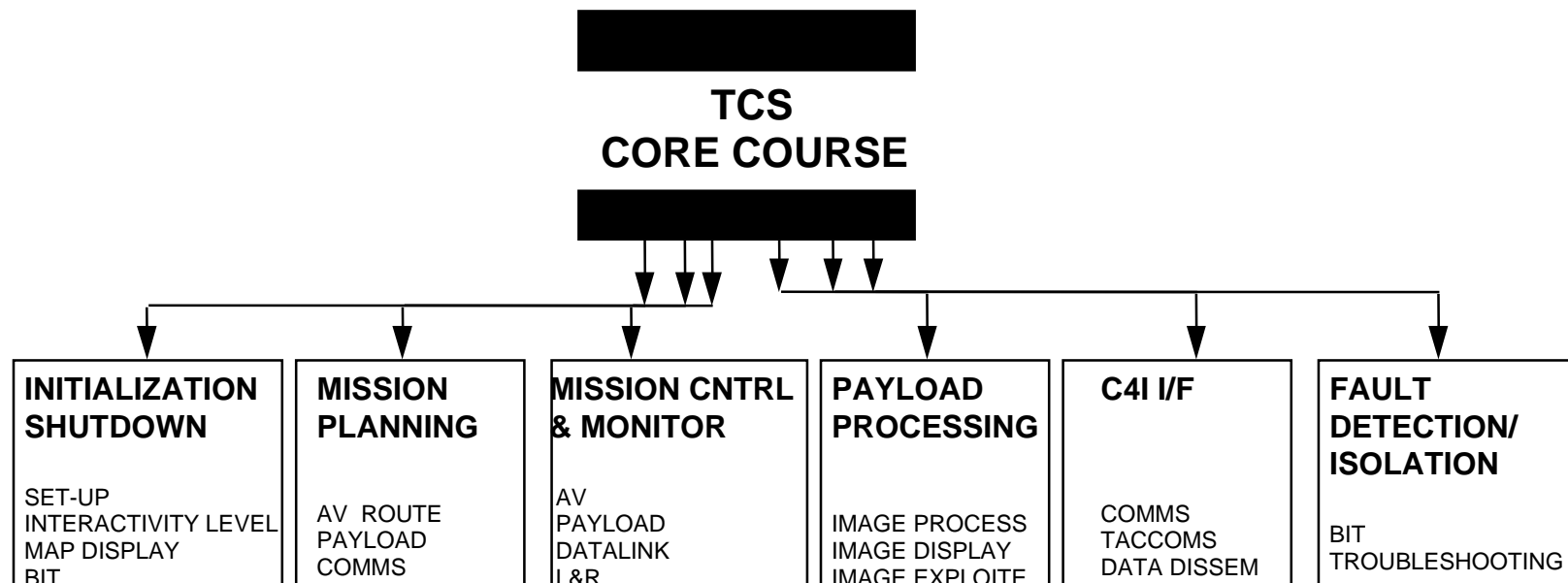


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TRAINING CONCEPT

- Develop three “bedrock” courses

- ¥ TCS Core Course - Support IQT at institutional bases.
Interactivity Levels 1-4 Single-UAV





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TRAINING CONCEPT

- ¥ **TCS Advanced Course** - TCS Interactivity Levels 3-5 multi-UAV operations.

- ı **Based on service directed criteria**

- ¥ **TCS Maintenance Course** -

- ı **Based on requirements identified from Logistics Analysis.**

- **Design courses in modular format**

- ¥ **Allow grouping, “mix and match” functional areas and individual lessons to support differences in existing training syllabi**

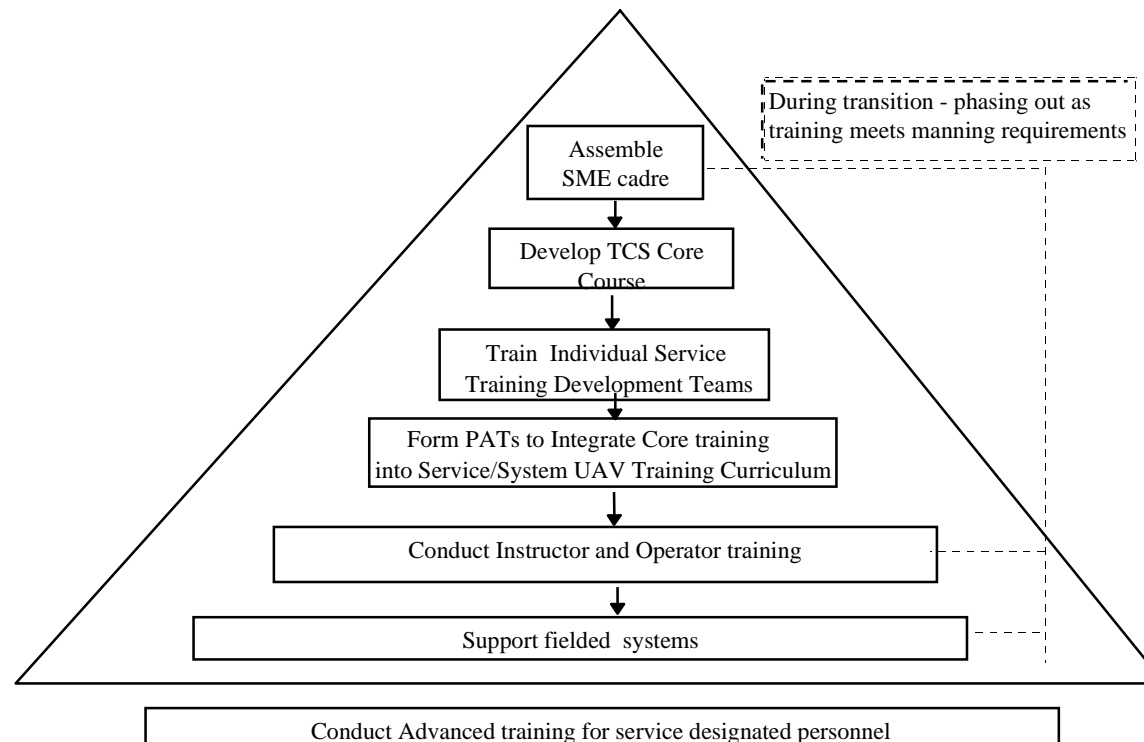


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IMPLEMENTATION

● Implementation Strategy

¥ Initial Implementation - Top Down strategy



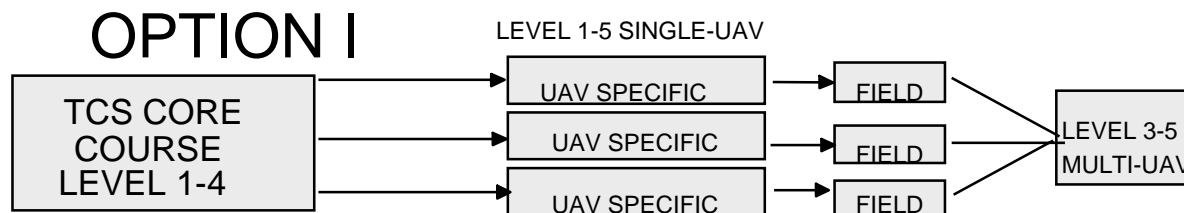


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IMPLEMENTATION

¥ TCS Training integration into service UAV specific training

Option I - “Common” Core course - teaches basic operation of the TCS System





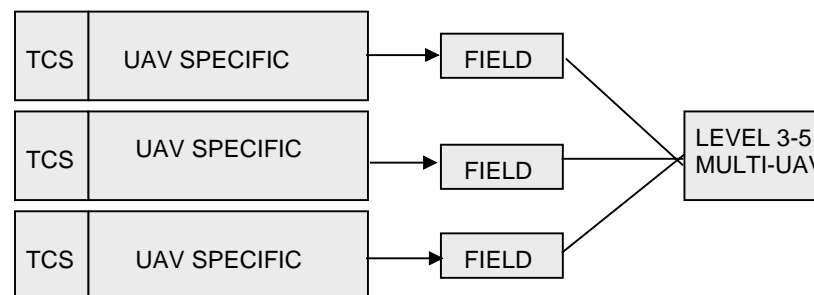
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IMPLEMENTATION

- Option II - Integrate TCS Core Course into curriculum of individual training programs

OPTION II

LEVEL 1-5 SINGLE-UAV
CERTIFIED





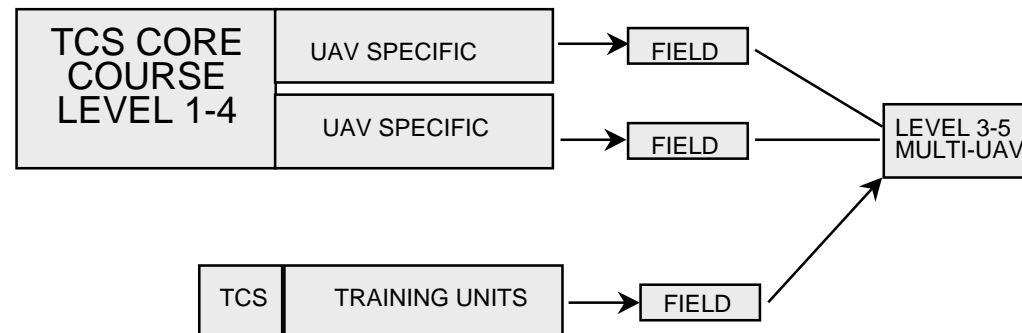
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IMPLEMENTATION

- Option III - Integrate into a common academic training for Army, Navy, Marines at Ft, Huachuca, AZ. Maintain separate training at Indian Springs, NV

OPTION III

LEVEL 1-5 SINGLE-UAV
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IMPLEMENTATION

- **Final Implementation**

TRAINING	TCS LEVEL OF QUALIFICATION
1. UAV-SPECIFIC (PIONEER, PREDATOR, OUTRIDER)	
• INSTITUTIONAL BASE TRAINING	
• SERVICE/SYSTEM IQT (TCS CORE COURSE INTEGRATION)	
• PIONEER (IP/PO)	LEVEL 1-5 SINGLE-UAV
• OUTRIDER (AVO/PO)	LEVEL 1-5 SINGLE-UAV
• PREDATOR	
• AVO	LEVEL 1-5 SINGLE-UAV
• PO	LEVEL 1-3 SINGLE-UAV
• TCS ADVANCED COURSE	LEVEL 3-5 MULTI-UAV
2. NON-UAV PERSONNEL (SHIP'S COMPANY, STAFF, OTHER FIELD PERSONNEL)	
• IN-SERVICE TRAINING	
• TAILORED CORE COURSE	LEVEL 1-2



METHODOLOGY

● TCS Training Methodology

¥ Develop Computer Based Training

┆ Interactive Courseware

- self-paced
- embedded in TCS System utilizing the HCI

┆ Formal lecture supported by Multi-media presentations

- support complex learning material

┆ Computer Managed Instruction

- Track performance

¥ Simulation



DEVELOPMENT TIMELINE

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● Training Development Timeline

- ¥ Incremental build - update approach
- ¥ Goal is a full training package to support LRIP Systems

TCS DEVELOPMENT	DATE	TRAINING PROGRAM DEMO DATE
ENGINEERING BUILD 3	04/98	06/98
ENGINEERING BUILD 5	07/98	08/98
PHASE II BEGINS	010/98	11/98